

As the eggs are known to require from two to three years to hatch, the insect will probably appear in numbers in 1922 or 1923.

While near Black Pond, Fairfax County, Virginia, on September 25, 1921, Mr. Clarence R. Shoemaker called the attention of the writer to a female *Amblycorypha rotundifolia* (Scudder) on a bush. It was a green example with the tegmina marbled with straw-color, which seems to be a rare variation. It is the only specimen so marked in the writer's collection. Straw-colored males have been found which sometimes have the tegmina spotted with small dots of a darker brown. Pink individuals are much more common in *oblongifolia* than in this species.—WM. T. DAVIS.

PROCEEDINGS OF THE NEW YORK ENTOMOLOGICAL SOCIETY.

MEETING OF FEB. 1.

A regular meeting of the New York Entomological Society was held at 8 P.M. on February 1, 1921, in the American Museum of Natural History. Pres. John D. Sherman, Jr., in the chair, with 14 members and one visitor present.

Mr. Edward Davis Quirsfeld, 523 4th St., Union Hill, N. J., was elected an active member.

A letter from Mr. R. P. Dow, absent in California, was read.

Mr. Nicolay gave the result of his examination of the Pselaphidæ of Mr. Davis' collection, calling attention especially to specimens of *Batrisesodes foveicornis* from Amagansett, Flushing and Jamaica, Long Island, and of *Batrisesodes globosus* from Staten Island, April 17th, 1908; and then read a paper on "Acmæoderæ" illustrated by two boxes from his collection and blackboard drawings of the parts used in classifying the species by Prof. H. C. Fall, in his last revision. Some rare species from the collections of Beyer, Notman, Mason, Woodgate, Fisher, Rehn and Hebard were pointed out.

Mr. Wm. T. Davis, under the title "Insects from North Carolina," exhibited four large boxes of insects and stated that he and Mr. James P. Chapin of the American Museum of Natural History had visited North Carolina in June, 1920. Nine days were spent at Southern Pines where the tree frog *Hyla andersonii* and the carpenter frog *Rana virgatipes* were collected; the former has not previously been reported from North Carolina. Three species of Pitcher Plants, namely: *Sarracenia purpurea*, *Sarracenia flava* and *Sarracenia rubra*, grow in the vicinity of Southern Pines. While so fatal to many insects that are lured to their death by the leaves of these plants, there are nevertheless quite a number of species that either eat the substance

of the leaves or otherwise make use of them. Three specimens of the moth *Exyra semicrocea* Guénee, the larvæ of which feed on the leaves, were found in those of *S. rubra* on June 12th, and the next day a like number were discovered in the leaves of *S. flava*. Seven specimens of *Exyra ridingsii* Riley were found in the leaves of *S. flava*, while of *Exyra rolandiana* Grote, nine were collected in the leaves of *S. flava* and one in *S. rubra* at a locality several miles distant. Also several nests of the wasp *Isodontia harrisi* were found in both green or dead leaves of *rubra* and in a dead leaf of *flava*. The nests were stored by the mother wasp with nymphs of *Amblycorypha*, *Neoconocephalus* and *Orchelimum* or *Conocephalus*. In one instance there was a small colony of ants, *Dolichoderus plagiatus pustulatus* Mayr., in a leaf of *flava* below and separated from that of the wasp occupying the same dead leaf. Likewise a species of spider was found not uncommonly in many of the leaves, in which they had spun webs. This spider is to be described by Mr. Nathan Banks.

Among other insects exhibited from Southern Pines was a specimen of *Apantesis placentia* Smith and Abbot. The moth was figured by the describers who regarded it as an uncommon insect. They state that the caterpillar is a general feeder.

Mr. Gaudin exhibited part of the beetles he had found in Montana, where, near Philipsburg, he had seen 300 buprestids and longhorns ovipositing on a recently built line fence. One misguided female mistaking a stone drill core for a part of the fence was trying to deposit an egg in it also.

MEETING OF FEB. 15.

A regular meeting of the New York Entomological Society was held at 8 P.M. on February 15, 1921, in the American Museum of Natural History, Pres. John D. Sherman, Jr., in the chair, with 16 members and four visitors present.

Mr. Angell proposed for active membership:

Mr. Alfred Lesieski, 775 Forest Ave., Bronx.

Mr. Davis proposed for active membership:

Mr. H. Herbert Johnson, Jr., Box 2, Dept. of Zoölogy, Columbia University.

Mr. Davis read letters from absent members, Dr. H. H. Knight and Dr. A. H. Sturtevant, the latter giving an account of the flourishing entomological department in Stanford University.

Mr. Olsen read a paper "Studies in the genus *Cicadella*," illustrated by specimens, which will be printed in full.

Dr. Bequaert, under the title "Critical Remarks on Certain Genera of Caliphorine Flies," reviewed the "Revision des Muscidae Testaceæ" by J. M. R. Surcouf in *Nouv. Arch. du Mus. d'h.n., Paris*, Vol. VI, 1914 (published in Dec., 1919), with four plates drawn by L. Guyon; and exhibited specimens collected by himself in Africa. He described the life history as far as

known of several species, giving an interesting account of his success in capturing the species named after him when he had learned its habits. The Congo floor maggot, *Auchmeromyia luteola*, doomed to extinction as soon as the African natives adopt the habit of sleeping in bed instead of on the ground, the species infesting wart hogs, aard varks and other bare-skinned animals, the screw worm fly, the species of *Plormia*, destructive to nestling birds in California and Colorado, and other species living in wounds were described.

Dr. Demetrius Borodin, of Russia, gave a brief account of his work in Economic Entomology.

Mr. Davis spoke of the spiders he had found at Southern Pines, N. C., in the pitcher plant, saying that in addition to a new species to be described by Mr. Nathan Banks, that authority had identified among his captures three males of *Thanatidius tenuis* Hentz, heretofore unknown, probably because the male is short-lived.

Mr. Davis also showed egg masses of the Oriental Mantid, *Paratenodera sinensis*, and stated that he and Mr. Burns had recently found them very numerous on the low bushes and vines on the sandy ground east of South Ave., Mariners' Harbor, Staten Island, but had not been able to discover any on the westerly side of the Avenue. Some, however, had been taken across the road, and so it is hoped to extend the colony. He also showed twigs of the Oriental Sycamore from Tompkinsville, Staten Island, in which were great numbers of the scale, *Lecanium nigrofasciatum*, determined by Mr. Harold Morrison, and ants from the green-house of the Brooklyn Botanical Garden, which Prof. Wheeler had determined as *Tetramorium guinense* Fabr., a common species of the tropics.

Dr. Bequaert said the study of ants inhabiting botanical gardens was very likely to yield interesting results from the chance of foreign species being introduced with plants.

MEETING OF MARCH 1.

A regular meeting of the New York Entomological Society was held at 8 P.M., March 1, 1921, in the American Museum of Natural History, Pres. John D. Sherman, Jr., in the chair, with 16 members, and two visitors present.

Messrs. Alfred Liesiski and H. Herbert Johnson, Jr., nominated at previous meeting, were elected active members.

Mr. Davis exhibited a Farmers Almanac showing rainy season and temperature records in each State.

Mr. Barber spoke "On the Genus *Lygæus*," illustrating his remarks, which will be printed elsewhere, by blackboard drawings and specimens.

Mr. Notman under the title "Some New Species of Carabidæ" exhibited a considerable collection received from A. B. Champlain, which included several new species of *Bembidion*, *Tachys*, *Celia*, *Pseudomorpha*, etc. Mr. Notman, with the help of blackboard drawings, explained the characters by which the new species were recognized, and their relation to related species.

Mr. S. G. Rich, present as a visitor, spoke briefly of his experiences in South Africa.

Mr. Davis announced the death on February 6, 1921, of Charles H. Sunderland, one of the Society's oldest members.

Mr. Wm. T. Davis exhibited the grasshopper *Conocephalus nigropleuroides* (Fox), female, collected on the salt meadow near Oakwood, Staten Island, September 14, 1914. He stated that Mr. H. Herbert Johnson, Jr., had collected a second female on the salt meadow near Old Place, Staten Island, September 8, 1920. The species was described from Cape May County, N. J., by Dr. Fox and has been reported by Rehn and Hebard from Ventnor, near Atlantic City, N. J. It has not been previously recorded from the State of New York. *Conocephalus spartinae* (Fox) is a common species on Staten Island, and has also been collected on Long Island.

MEETING OF MARCH 15.

A regular meeting of the New York Entomological Society was held at 8 P.M. on March 15, 1921, in the American Museum of Natural History, Pres. John D. Sherman, Jr., in the chair, with 28 members and two visitors present.

Mr. Nicolay reported for the Outing Committee, on excursion to Van Cortlandt Park and to the Palisades. Communications from World Metric Standardization Council, W. Dwight Pierce, W. J. Chamberlin and Warren Knaus were read.

Dr. Lutz read a paper on "Geographic Average, a Suggested Method for the Study of Distribution," which has been printed in American Museum Novitates, March 14, 1921. His method would substitute for such ambiguous terms as Arctic, Hudsonian, Canadian, etc., definite average degrees of latitude and longitude, calculated from the known distribution of the plants occurring within the region conceded to be Arctic, for instance. Such calculations, once carefully made, would furnish a definite index with which the flora of any particular locality could be compared or with which the average distribution of any particular species of plant or animal could also be compared. Provisional latitudinal averages, based on the distribution given in Britton & Brown's "Illustrated Flora," were:

Arctic.....	More than 52° N.
Hudsonian.....	48 or 49° N.
Canadian.....	44 or 45° N.
Alleghenian.....	41 or 42° N.
Carolinian.....	38 or 39° N.
Louisianian.....	Less than 34 N.

Dr. Lutz laid much stress on the fundamental studies of Merriam and of Allen, pointing out the early and valuable work of the latter in differentiating the arid and humid divisions of the warmer temperate region.

Discussion followed by many members, in the course of which Mr. Davis called attention to the faunal map prepared by Dr. John L. Leconte for the Smithsonian Institution (1859) whereon is shown the marked change that takes place in the fauna near the 100 meridian, and to Prof. Cyrus Thomas' Notes on the Saltatorial Orthoptera of the Rocky Mountain Region, 1872, where the statement is made that the eastern limit of the arid plains constitutes a more rigid boundary to the Orthopterous fauna than the dividing range of the Rocky Mountains.

Mr. Davis exhibited "Some New Cicadas from Western North America" contained in three boxes. The descriptions have been published in the JOURNAL.

Mr. Davis also exhibited the Proc. Ent. Soc. B. C.

Mr. J. W. Angell commented on the ease with which Cicadas are collected early in the morning and upon a convenient axe for collecting purposes.

MEETING OF APRIL 5.

A regular meeting of the New York Entomological Society was held at 8 P.M., April 5, 1921, in the American Museum of Natural History, Pres. John D. Sherman, Jr., in the chair, with 22 members and four visitors, including Dr. W. L. Tower, and several ladies present.

Mr. Frank Morton Jones delivered a lecture on "Food Plant Influence on Insect Specialization as exhibited by *Sarracenia* and *Exyra*," illustrated by lantern slides, original drawings, photographs and specimens from his herbarium and entomological collection.

The entire history of each species of pitcher plant and allied genera from New Jersey south to Florida and westward to California was given from Mr. Jones' personal experience; and the adaptations in the species of *Exyra* inhabiting them were traced with equal care through egg, larva, pupa and adult; of the adults dozens of specimens were shown.

After discussion by Messrs. Bird, Weiss, Notman, Davis and Dr. Bequaert, a vote of thanks, on motion by Dr. Lutz, was unanimously given to Mr. Jones. Dr. W. L. Tower, present as a visitor, spoke of Mr. Jones' lecture as a welcome contribution to our knowledge of the subject in its thorough statement of the facts, though he thought there might be some difference of opinion in their interpretation.

Mr. Leng announced the lecture at the Staten Island Museum on April 16th, by Dr. J. Chester Bradley, on his recent travels in South America.

MEETING OF APRIL 19.

A regular meeting of the New York Entomological Society was held at 8 P.M., April 19, 1921, in the American Museum of Natural History, Pres. John D. Sherman, Jr., in the chair, with nineteen members and seven visitors present.

The following new members were elected:

W. H. Southwick, 34 Gramerey Park, New York City.

Arnold H. Olsen, 128 West 97th St., New York City.

S. E. Cassino, Salem, Mass.

Mr. Hall exhibited "Some Butterflies from Mt. Washington" and described his experiences in collecting them and the differences in the season in the various years. His remarks covered particularly *Brenthus montinus*, *Grapta faunus* and *J-album*, *Colias eurymus* and *C. interior*, *Eneis semidea*. He called attention to the damage to the hind wings of one butterfly and asked if it could have been done by a bird. Messrs. Burns, Notman and Watson cited cases of birds chasing butterflies; Mr. Davis said he also had rarely seen such occurrences but more frequently the chasing was done by asilid flies and large dragon flies. Mr. Tee Van, present as a visitor, said that in the examination of 1,000 bird stomachs, remains of moths were plentiful, but only one butterfly was found.

Mr. Cassino, on request, spoke of his Mt. Washington experiences, referring especially to some extraordinary collections of geometers made at night, as on May 25 when he and Mr. Swett had taken 1,200 specimens, including some noctuids; on another occasion above 5th mile post, 125 rare geometers were taken. He said that a 400 c.p. gasoline lamp with mantel was used to illuminate a sheet on these trips; and referred in a general discussion of Mt. Washington to the universal remembrance of Mrs. Slosson's collecting on the summit.

Mr. Weiss exhibited the result of his collecting trips near New Brunswick, N. J., during the past four weeks, principally devoted to a swampy tract of 15 to 25 acres near Monmouth Junction.

Mr. Wm. T. Davis stated that the present spring was from three to four weeks earlier than the usual one. Pear trees were fully in blossom on Staten Island on April 6, and some apple blossoms were open on April 9. Usually apple blossoms do not appear until the first week in May or later. He reported seeing several little blue butterflies (*Lycena pseudargiolus*) on March 28 in the Moravian Cemetery, Staten Island. On the same day many *Pieris rapa* butterflies were also seen. On the warm nights in the latter part of March and first part of April many *Carabus nemoralis* beetles, which have become very numerous on parts of Staten Island, were attracted to the electric lights and some met their death by being stepped on. In a short distance near St. Paul's Ave., Tompkinsville, six of these beneficial beetles were found crushed on the sidewalk.

Mr. Sherman said that 30 to 40 *Carabus nemoralis* were seen under electric lights at Mt. Vernon, N. Y., on the Sunday before Easter.

Mr. J. W. Angell found *Dorcus parallelus* on March 19

Mr. Nicolay gave an account of the trips made with Messrs. Shoemaker and Quirsfeld to Palisades, Wyandanch and Van Cortlandt, where *Cychnus*

lecontei and many Pselaphidæ and Scydmaenidæ were found. He illustrated on the blackboard the differences in the antennæ of three species of *Brachygluta*, *abdominalis* having the penultimate joint short, quadrate, *luniger*, the last two joints nearly equally elongate, *cavicornis*, both elongate but the penultimate much the longer. It appeared from his records that *cavicornis* was the common species on the Staten Island salt meadow near Decker's pond.

Mr. Notman and Dr. Bequaert also spoke of Pselapid collecting under bark and in damp woods.

In a general discussion of the early spring it developed from many instances cited by Messrs. Woodruff, Burns (*Papilio turnus* flying April 12th), Davis (*Cicindela rugifrons* April 3d), Shoemaker, Bischoff, Dr. Lutz, Angell, Watson, Nicolay, Weiss and others, that while the season for plants and overwintering insects was certainly early, there were probably other insects that failed to respond to the impulse of the warm days in March, as shown by the poor collecting at Pussy Willow this year. Dr. Bequaert objected, however, to any conclusions being drawn regarding insects without the same carefully compiled comparative data that Mr. Davis used regarding plants.

Mr. Tee Van spoke briefly of his collecting in the South American rain forest with Prof. Wheeler and Dr. Forbes and the intensive work done in a limited area.

Dr. Bequaert announced the repetition in Brooklyn of Dr. Bradley's lecture on Upper Amazon country, praising it as given in the Staten Island Museum.

Mr. Cassino closed the meeting by an interesting account of his early entomological experiences with Putnam and Packard, his drawings of Geometrid venation, his 22 editions of the Naturalist's Directory, his connection with the American Naturalist, etc.